the extent that they include the elements required by paragraphs (c) and (d) of this section.

### § 420.61 Records.

(a) A licensee shall maintain all records, data, and other material needed to verify that its operations are conducted in accordance with representations contained in the licensee's application. A licensee shall retain records for three years.

(b) In the event of a launch or launch site accident, a licensee shall preserve all records related to the event. Records shall be retained until completion of any federal investigation and the FAA advises the licensee that the records need not be retained.

(c) A licensee shall make available to federal officials for inspection and copying all records required to be maintained under the regulations.

### § 420.63 Explosive siting.

(a) Except as otherwise provided by paragraph (b) of this section, a licensee must ensure the configuration of the launch site follows its explosive site plan, and the licensee's explosive site plan complies with the requirements of §§ 420.65 through 420.70. The explosive site plan must include:

(1) A scaled map that shows the location of all explosive hazard facilities at the launch site and that shows actual and minimal allowable distances between each explosive hazard facility and all other explosive hazard facilities, each public traffic route, and each public area, including the launch site boundary;

(2) A list of the maximum quantity of energetic liquids, solid propellants and other explosives to be located at each explosive hazard facility, including explosive class and division;

(3) A description of each activity to be conducted at each explosive hazard facility; and

(4) An explosive site map using a scale sufficient to show whether distances and structural relationships satisfy the requirements of this part.

(b) A licensee operating a launch site located on a federal launch range does not have to comply with the requirements in §§ 420.65 through 420.70 if the licensee complies with the federal launch range's explosive safety requirements.

(c) For explosive siting issues not addressed by the requirements of §§ 420.65 through 420.70, a launch site operator must clearly and convincingly demonstrate a level of safety equivalent to that otherwise required by this part.

(d) A launch site operator may separate an explosive hazard facility from another explosive hazard facility, public area, or public traffic route by a distance different from one required by this part only if the launch site operator clearly and convincingly demonstrates a level of safety equivalent to that required by this part.

[Docket No. FAA–2011–0105, 77 FR 55113, Sept. 7, 2012]

### § 420.65 Separation distance requirements for handling division 1.1 and 1.3 explosives.

(a) *Quantity*. For each explosive hazard facility, a launch site operator must determine the total quantity of division 1.1 and 1.3 explosives as follows:

(1) A launch site operator must determine the maximum total quantity of division 1.1 and 1.3 explosives by class and division, in accordance with 49 CFR part 173, Subpart C, to be located in each explosive hazard facility where division 1.1 and 1.3 explosives will be handled.

(2) When division 1.1 and 1.3 explosives are located in the same explosive hazard facility, the total quantity of explosive must be treated as division 1.1 for determining separation distances; or, a launch site operator may add the net explosive weight of the division 1.3 items to the net explosive weight of division 1.1 items to determine the total quantity of explosives.

(b) *Separation of division 1.1 and 1.3 explosives and determination of distances*. A launch site operator must separate each explosive hazard facility where division 1.1 and 1.3 explosives are handled from all other explosive hazard facilities, all public traffic routes, and each public area, including the launch site boundary, by a distance no less than that provided for each quantity and explosive division in appendix E of this part as follows:

(1) For division 1.1 explosives, the launch site operator must use tables E–1, E–2, and E–3 of appendix E of this part to determine the distance to each public area and public traffic route, and to determine each intraline distance.

(2) For division 1.3 explosives, the launch site operator must use table E–4 of appendix E of this part to determine the distance to each public area and public traffic route, and to determine each intraline distance.

(c) *Separation distance by weight and table.* A launch site operator must:

(1) Employ no less than the public area distance, calculated under paragraph (b) of this section, to separate an explosive hazard facility from each public area, including the launch site boundary.

(2) Employ no less than an intraline distance to separate an explosive hazard facility from all other explosive hazard facilities used by a single customer. For explosive hazard facilities used by different customers a launch site operator must use the greater public area distance to separate the facilities from each other.

(3) Separate each public area containing any member of the public in the open by a distance equal to −1133.9 + [389 *ln(NEW)], where the NEW is greater than 450 pounds and less than 501,500 pounds.

(d) *NEW Quantities that Fall between Table Entries.* A launch site operator must, when determining a separation distance for NEW quantities that fall between table entries, use the equation provided by tables E–1, E–3, or E–4 of appendix E of this part.

(e) *Calculating Maximum Permissible NEW Given a Distance. A launch site operator must, when determining* a permissible quantity of explosives, calculate maximum permissible NEW using the equation of tables E–1, E–3, or E–4 of appendix E of this part.

[Docket No. FAA–2011–0105, 77 FR 55114, Sept. 7, 2012]

### § 420.66 Separation distance requirements for storage of hydrogen peroxide, hydrazine, and liquid hydrogen and any incompatible energetic liquids stored within an intraline distance.

(a) *Separation of energetic liquids and determination of distances.* A launch site operator must separate each explosive hazard facility from each other explosive hazard facility, each public area, and each public traffic route in accordance with the minimum separation distance determined under this section for each explosive hazard facility storing:

(1) Hydrogen peroxide in concentrations of greater than 91 percent;

(2) Hydrazine;

(3) Liquid hydrogen; or

(4) Any energetic liquid that is:

(i) Incompatible with any of the energetic liquids of paragraph (a)(1) through (3) of this section; and

(ii) Stored within an intraline distance of any of them.

(b) *Quantity.* For each explosive hazard facility, a launch site operator must determine the total quantity of all energetic liquids in paragraph (a)(1) through (4) of this section as follows:

(1) The quantity of energetic liquid in a tank, drum, cylinder, or other container is the net weight in pounds of the energetic liquid in the container. The determination of quantity must include any energetic liquid in associated piping to any point where positive means exist for:

(i) Interrupting the flow through the pipe, or

(ii) Interrupting a reaction in the pipe in the event of a mishap.

(2) A launch site operator must convert the quantity of each energetic liquid from gallons to pounds using the conversion factors provided in table E–6 of appendix E of this part and the following equation:

Pounds of energetic liquid = gallons × density of energetic liquid (pounds per gallon).

(3) Where two or more containers of compatible energetic liquids are stored in the same explosive hazard facility, the total quantity of energetic liquids is the total quantity of energetic liquids in all containers, unless: